2C108

ER/WM&I DDT

Source/Driver: (Name & Number from ISP, IAG milestone, Mgmt. Action, Corres. Control, etc.)

Closure #: (Outgoing Correspondence Control #, if applicable)

Due Date

00010038

N. S. Demos/M. C. Broussard for
Originator Name

G.D. DiGregorio
QA Approval

J. E. Law
Contractor Manager(s)

Lane Butler
Kaiser-Hill Program Manager(s)

Alan Rodgers
Kaiser-Hill Director

Document Subject:

TRANSMITTAL OF THE "NO FURTHER ACTION DECISION DOCUMENT FOR THE PROPERTY UTILIZATION AND DISPOSAL YARD, RF/RMRS-99-331.UN" - JEL-040-99

KH-00003NS1A

March 31, 1999

Discussion and/or Comments:

Enclosed please find eight (8) copies of the ***"No Further Action Decision Document for the Property Utilization and Disposal Yard, RMRS-99-331.UN"*** for transmittal to Kaiser-Hill and the Department of Energy (DOE), RFFO. Comments have been received from Kaiser-Hill and DOE and have been incorporated into this final document.

If you have any questions concerning this transmittal, please contact Nick Demos at extension 4605.

pw

cc:
A. C. Crawford, B116 w/o
S. H. Mills
J. W. Patterson w/o
A. L. Primrose
RMRS Records

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
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COMPANY

RMRS Rocky Mountain Remediation Services, L.L.C.
...protecting the environment

No Further Action Justification Document for the Property Utilization and Disposal Yard Asbestos Site

RF/RMRS-99-331.UN

March 31, 1999
Revision: 0

2

RF/RMRS-99-331.UN

No Further Action Justification Document for the Property Utilization and Disposal Yard Asbestos Site (PAC-NW-1501)

Rocky Mountain Remediation Services, L.L.C.
and
Kaiser-Hill, L.L.C.
Rocky Flats Environmental Technology Site
Golden, Colorado

March 31, 1999
Revision: 0

Document Classification
Review Waiver per
Classification Office
CEX-010-98

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FIGURES

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APPENDICES

ACRONYMS

ACBM ..... Asbestos Containing Building Materials
AHERA ..... Asbestos Hazard Emergency Response Act
CAD/ROD ..... Corrective Action Decision/Record of Decision
CDPHE ..... Colorado Department of Public Health and Environment
CERCLA ..... Comprehensive Environmental Response, Compensation and Liability Act
DOE ..... United States Department of Energy
EPA ..... United States Environmental Protection Agency
HRR ..... Historical Release Report
ND ..... Non-Detected
NFA ..... No Further Action
NIST ..... National Institute of Standards and Technology
NVLAP ..... National Voluntary Laboratory Accreditation Program
OSHA ..... Occupational Safety and Health Administration
OU ..... Operable Unit
PAC ..... Potential Area of Concern
PCOC ..... Primary Contaminant of Concern
PLM ..... Polarized Light Microscopy
PU&D ..... Property Utilization and Disposal
QC ..... Quality Control
RFCA ..... Rocky Flats Cleanup Agreement
Site ..... Rocky Flats Environmental Technology Site
TR ..... Trace
TSI ..... Thermal Systems Insulation
UHSU ..... Upper Hydrostratigraphic Unit

1.0 INTRODUCTION

On January 28,1999, the Property Utilization and Disposal (PU&D) yard asbestos site was inspected and sampled to determine the presence or absence of Asbestos Containing Building Materials (ACBM). The asbestos inspection was conducted in accordance with guidelines set forth by the Asbestos Hazard Emergency Response Act (AHERA) and complies with the United States Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and State of Colorado regulations covering asbestos inspections. The asbestos site was designated a Potential Area of Concern (PAC) due to the storage of an asbestos insulated boiler at that location under requirements set forth in the Historical Release Report (HRR) process and referenced as PAC NW-1501 (EG&G, 1993). The site constitutes a geographical area at the Rocky Flats Environmental Technology Site (Site) and was selected by the No Further Action (NFA) working group as a candidate for further study and potential NFA.

This justification document identifies the physical location where the asbestos-insulated boiler was stored, the sampling rationale, sampling results, physical assessment, and descriptions of all materials either assumed or identified through sampling and analysis to be asbestos containing. The justification document is prepared in accordance with the Rocky Flats Cleanup Agreement (RFCA), Attachment 6, (DOE, 1995 and 1996). In accordance with RFCA, this NFA document will be summarized in the 1999 Annual Update to the HRR where information and data will be held as a place-keeper until the final Buffer Zone Operable Unit (OU) Corrective Action Decision/Record of Decision (CAD/ROD) is completed. The HRR is an annual RFCA deliverable submitted to the EPA and the Colorado Department of Public Health and Environment (CDPHE).

1.1 PURPOSE

The purpose of this document is to provide justification that No Further Action is warranted for Potential Area of Concern NW-1501. This proposed NFA justification is based upon soil data documented in this report.

Information and data presented in this document provide the basis as described under RFCA (Attachment 6), to justify that PAC NW-1501 does not warrant further investigation or remediation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). PAC NW-1501 is located within the Buffer Zone Operable Unit.

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1.2 BACKGROUND INFORMATION

PAC NW-1501 is located within the southwest corner of the "old" PU&D yard and is within Individual Hazardous Substance Site 170 (DOE, 1992), see Figure 1.1. In November of 1992, an abandoned boiler wrapped with asbestos insulation was stored at this location. It was reported that the asbestos insulation was deteriorating and, as a result, potentially releasing asbestos to the environment. The incident was documented in the third Quarterly Report to the HRR (reporting period from January 1, 1993, through April 1, 1993) and originally reported as PAC NW-176 (EG&G, 1993). The original designation was updated to PAC NW-1501 in the fourth Quarterly Report when it was realized that the original designation was inconsistent with the HRR numbering methodology.

Upon discovery of the potential release, the boiler was sampled for asbestos, wrapped in plastic and removed from the PU&D yard. The 1992 sampling results of the insulation material (see Appendix A) identified the source material as 60% chrysotile asbestos (based upon the total volume of sample analyzed). The Primary Contaminant of Concern (PCOC) for characterization of PAC NW-1501 is chrysotile asbestos.

2.0 FIELD INVESTIGATIONS

As described in Section 1.2, because of the presence of the deteriorating boiler insulation (chrysotile asbestos), contamination of the surface soils was suspected. At the time of the boiler discovery, visual signs of soil contamination were not observed; therefore, soil sampling was not conducted.

The characterization methodology specified by the Colorado Code of Regulations CCR #8 and EPA 40 CFR 763.86 for asbestos contamination was followed for this investigation. A Sampling and Analysis Plan was prepared by the State Certified Asbestos Inspector (RMRS, 1999) which follows the required methodology as well as plant procedures. The regulation requires that surface soils be sampled to an approximate one-inch depth over a grid of the potentially contaminated area. In addition, the characterization must be performed by a State Certified Asbestos Inspector (see Appendix B). Based on the site dimensions of PAC NW-1501, a nine-section grid layout with sampling grids of approximately 70 feet by 40 feet (see Figure 2.1) was oriented over the site (the super-grid). The super-grid was further subdivided

into nine smaller sections (the sub-grid). Within each sub-grid, three sample locations were randomly selected.

Samples were then collected from each location and composited (see Figure 2.2). Using this methodology, 27 locations were sampled and are represented as nine samples from the investigation area. Each sample was assigned an individual number consisting of the date the sample was acquired, the initials of the sampling technician, a three-digit number representing the sub-grid sampled, and a single digit representing the larger grid layout (e.g., 990128-MS-123-1). One duplicate quality control (QC) sample was acquired from super-grid Section 9 and is designated on Table 1 as QC.

The samples were submitted to a laboratory accredited through the National Institute of Standards and Technology (NIST) and also a participant in the NIST National Voluntary Laboratory Accreditation Program (NVLAP) for analysis by Polarized Light Microscopy (PLM) in compliance with guidelines established by the EPA 40 CFR 763, Subpart F, Appendix A. In addition, a signed statement is attached to this report (see Appendix B) to verify that the asbestos characterization was performed in accordance with applicable regulations and by certified personnel. Analytical results are presented in Section 4.1, Source Evaluation, and have been incorporated into the Soil and Water Database.

3.0 PHYSICAL CHARACTERISTICS

3.1 SURFACE FEATURES

The PU&D yard is a flat lying rectangular area of approximately 160,000 square feet. A barbed wire fence encompasses the yard with locked gates on the north and east allowing controlled access and egress. The yard was emptied of all previously stored items in 1994 and, at present, is overgrown with weeds. PAC NW-1501 is a rectangular area of approximately 2,800 square feet located in the southwest corner of the PU&D yard. The area is relatively cluttered by windblown debris from several construction trailers staged west and outside of the PU&D yard perimeter fence.

3.2 GEOLOGY

In the area of the PU&D yard, the Rocky Flats Alluvium is 25 to 30 feet thick and consists of

clayey gravel to sandy clay. The weathered bedrock consists of claystone of the Laramie formation, with thickness ranging from approximately 4 to 35 feet (EG&G 1995, RMRS 1998).

3.3 HYDROGEOLOGY

The Upper Hydrostratigraphic Unit (UHSU) is composed of Rocky Flats Alluvium and weathered bedrock claystones that are in direct hydraulic communication with the overlying surficial deposits. The weathered claystones are generally more permeable than unweathered bedrock. Unweathered claystones are not considered as part of the uppermost aquifer, rather they are included as part of the lower hydrostratigraphic unit.

Average depth to groundwater in this area ranges from 5 to 15 feet. The depth to groundwater in weathered bedrock is generally deeper than that of the overlying surficial deposits due to the presence of steep, downward-vertical gradients prevalent in bedrock materials. Within the PU&D yard area, groundwater generally flows eastward consistent with the surface topography. Calculated average linear-flow velocities in fill materials are approximately one foot per year near the eastern boundary of the PU&D yard.

Groundwater discharge is to the North Walnut Creek drainage, generally, as hillside seeps and shallow subsurface flow. In addition, groundwater potentially discharges to the drainage now filled by the Present Landfill.

3.4 ECOLOGY

The PU&D yard is typically considered a degraded habitat area with very little natural prairie habitat remaining. Ecological diversity for the area is low and there are no wetlands. Vegetation consists primarily of several noxious weeds including Knapweed and Musk Thistle. Small animals include deer mice and prairie vole while larger mammals include coyotes and deer.

4.0 NATURE AND EXTENT OF CONTAMINATION

Results of the investigative activities described in Section 2.0 are presented in this section and used to evaluate the presence or absence of asbestos contamination at PAC NW-1501. Based on the results of the field investigation, asbestos contamination which could act as a source of contamination or a threat to human health or the environment (>1%) was not identified.

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4.1 SOURCE EVALUATION

PAC NW-1501 was reported in 1992, when a boiler with chrysotile asbestos insulation was identified and removed. Nine surface soil samples and one duplicate were collected on January 24, 1999, in accordance with applicable regulations and the Sampling and Analysis Plan (RMRS, 1999) to determine if soils at the Site were contaminated with chrysotile asbestos.

As discussed in Section 2.0, the samples were analyzed by Polarized Light Microscopy (which is the approved laboratory method under current regulations). In accordance with the analytical method, asbestos concentrations are visually estimated and reported in a percent by layer for each sample. As shown in Table 1, none of the soil samples contained detectable levels of chrysotile asbestos (the PCOC).

Trace amounts of tremolite asbestos (equivalent to .25%) were detected in samples #1 and #7. Tremolite was not identified as a PCOC for this project because the 1992 sampling event conducted on source materials did not identify tremolite in the insulating material (see Appendix A). In addition, the certified asbestos inspector stated that tremolite is a commonly observed mineral in soils along the front range (personal communication between the project manager (N.S. Demos) and the asbestos inspector (M.N. Schluterbusch) conducted January 13, 1999.

Table 1: 1999 Asbestos Results (Polarized Light Microscopy)

Sample Number	Sample Description and Location	Lab Result Tremolite	Lab Result Chrysotile
990128-MS-123-1	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 9	TR (<.25%)	ND(<1%)
990128-MS-123-2	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 1	ND	ND(<1%)
990128-MS-123-3	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 2	ND	ND(<1%)
990128-MS-123-4	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 3	ND	ND(<1%)
990128-MS-123-5	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 4	ND	ND(<1%)
990128-MS-123-6	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 5	ND	ND(<1%)
990128-MS-123-7	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 11	TR (<.25%)	ND(<1%)
990128-MS-123-8	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 17	ND	ND(<1%)
990128-MS-123-9	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 7	ND	ND(<1%)
990128-MS-123-10 (QC)	1" soil sample; from super-grid 1, sub-grids 1,2, & 3. Used Random Number Diagram # 7	ND	ND(<1%)

ND indicates Non-Detected; PLM = Polarized Light Microscopy.; TR indicates Trace Detection <.25%
*See Appendix C for Bulk Asbestos Soil Laboratory Data

Based on the analytical results, PAC NW-1501 soils are not contaminated with asbestos and, as a result, a residual source of asbestos contamination does not exist for the PAC.

4.2 SITE CONCEPTUAL MODEL

A conceptual model illustrates potential exposure pathways from a contaminant source and the resulting exposure routes that could result in an uptake of a contaminant by a receptor. In order for a public health or environmental threat to exist, a complete pathway for exposure must exist between a site (i.e., the contaminant) and a receptor (RFCA, Attachment 6, Section 1.3). To be considered complete, an exposure pathway must have (1) a source or release from a source and (2) an exposure point where contact can occur. Based on the results of the NW-1501 investigation, it has been determined that a source of contamination does not exist and, as a result, there is no potential threat to public health or the environment.

4.3 BACKGROUND COMPARISON

Based on the results of the investigation, an asbestos contaminant source was not identified; therefore, no contamination exists.

4.4 NATURE AND EXTENT OF CONTAMINATION

Based on the results of the investigation, an asbestos contaminant source was not identified; therefore, no contamination exists.

5.0 NFA JUSTIFICATION

An asbestos source evaluation was performed on PAC-NW-1501 per RFCA (DOE, 1996) (see Figure 5.1). The removal of the asbestos-containing boiler in 1992 and the results of the recent source evaluation are sufficient to determine that there is no current or potential threat to public health or the environment. According to RFCA (DOE, 1996), if a previous removal action has removed a contaminant source (removal and disposal of the asbestos containing boiler), then an NFA justification shall be prepared and the HRR updated. This report provides the justification for NFA and the basis for updating the 1999 HRR.

Final RFCA
Attachment 6
July 19, 1996

Decision Points for NFA Recommendations

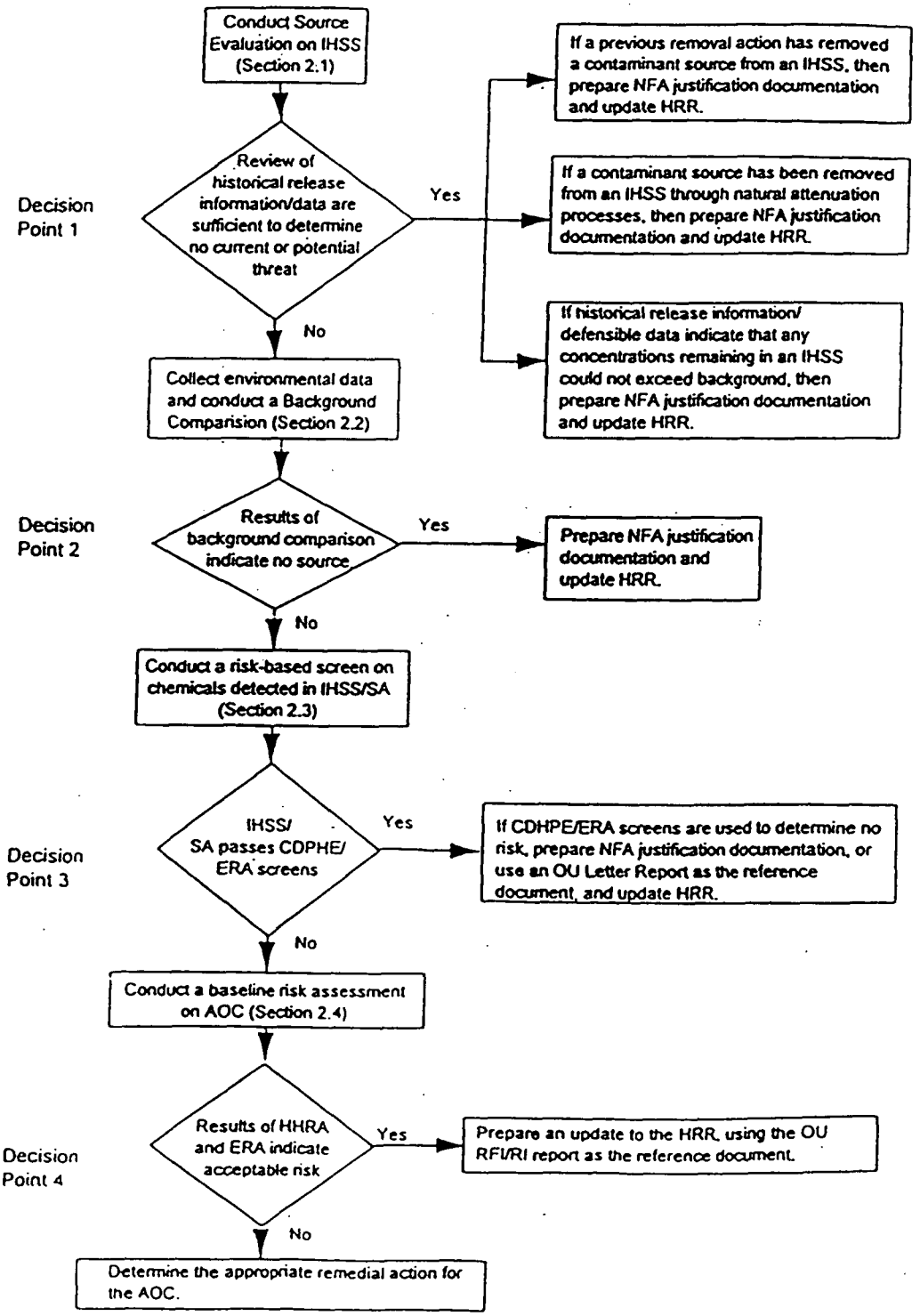

Figure 5.1

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6.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This NFA justification document for the Property Utilization and Disposal Yard Asbestos Site (PAC-NW-1501) was prepared to summarize the background information, the source evaluation field investigations, the physical characteristics of the geographic area, the nature and extent of contamination, and justification for NFA. On the basis of removal of the boiler containing asbestos material and the results of the asbestos contamination source evaluation, it has been determined that there is no current or potential threat of asbestos to public health or the environment as a result of the boiler storage activities in the area of PAC-NW-1501. Therefore, PAC-NW-1501 is proposed for NFA in accordance with the guidelines under RFCA (DOE, 1996).

7.0 REFERENCES

DOE, 1992, *Historical Release Report for the Rocky Flats Plant*, Rocky Flats Plant, Golden, CO, June.

DOE, 1995 & 1996, *Final Rocky Flats Cleanup Agreement*, Department of Energy, Rocky Flats Environmental Technology Site, Golden, CO, July.

EG&G, 1995, *Hydrogeologic Characterization Report*, EG&G Rocky Flats, Inc., Golden, Colorado, February.

EG&G, 1993, *Third Quarterly Report to the Historical Release Report*, Rocky Flats Plant, Golden, CO, April.

RMRS, 1998, *Groundwater Monitoring at the Present Sanitary Landfill,* Rocky Flats Environmental Technology Site, RF/RMRS-98-250.UN.

RMRS, 1999, *Asbestos Sampling and Analysis Plan for the Property Utilization and Disposal Yard Boiler Site,* Rocky Flats Environmental Technology Site, RF/RMRS-99-300.

1987, 40 CFR 763.86, Appendix A, Subpart F, Federal Register, Vol. 52, No. 210, Rules and Regulations, October 30.

Appendix A

1992 Laboratory Data Results
(Potential Source Material)

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

EG&G Rocky Flats, Inc.
P.O. Box 464, T452G
Golden, CO 80402

May 27, 1992
PACE Project Number: D20518E

Attn: Mr. Scott Nickerson

Client Reference: 141A / J. E. Sanchez

PACE Sample Number:			65 0046869	65 0046877	65 00468
Date Collected:			05/12/92	05/12/92	05/12/92
Date Received:			05/18/92	05/18/92	05/18/92
Client Sample ID:			PUD 920512	PUD 920512	PUD 9205
Parameter	Units	MDL	13-01	13-02	13-03
INORGANIC ANALYSIS					
BULK ASBESTOS					
Chrysotile Asbestos	%	1	60	60	60
Amosite Asbestos	%	1	ND	ND	ND
Crocidolite Asbestos	%	1	ND	ND	ND
Tremolite/Actinolite	%	1	ND	ND	ND
Anthophyllite	%	1	ND	ND	ND
Total Asbestos	%	1	60	60	60

MDL Method Detection Limit
ND Not detected at or above the MDL.

6930 McIntyre Street
Golden, CO 80403
TEL: 303-278-3400
800-878-9434
FAX: 303-278-2121

Appendix B

STATEMENT OF CERTIFICATION

STATEMENT OF CERTIFICATION

The asbestos building inspection evaluation performed on the **Property Utilization and Disposal Yard Boiler Site** was performed in accordance with applicable regulations, and employed only EPA AHERA accredited personnel.

INSPECTOR: Michael N. Schluterbusch

EPA ACCREDITATION: [redacted]

STATE OF COLORADO CERTIFICATION: [redacted]

I hereby attest and certify that I performed the asbestos building inspection evaluation on The Property Utilization and Disposal Yard Boiler Site at the Rocky Flats Environmental Technology Site.

Signature: [signature] Date: 2/24/99

Appendix C

1999 BULK ASBESTOS SOIL SAMPLE DATA

RESERVOIRS ENVIRONMENTAL SERVICES, INC.

NVLAP Accredited Laboratory #1896

TABLE I. PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: **RES 57296-1&2**
Client: **Kaiser-Hill Company, LLC**
Client Project: **99Z4983, On-Site Sample Analysis, M. Schluterbusch**
Date Samples Received: **February 01, 1999**
Analysis Type: **PLM Short Report, Bulk**
Turnaround: **24 Hour**

Note: The US EPA requires use of stratified analysis for NESHAP and AHERA compliance. Composite results only apply for specific exceptions.

Client Sample Number	Lab ID Number	Layer	Physical Description	Portion of Total Sample (%)	ASBESTOS CONTENT BY LAYER Mineral	ASBESTOS CONTENT BY LAYER Visual Estimate (%)	Non-Asbestos Fibrous Components (%) CELL	GLASS	SYNTH	HAIR	WOLL	TALC	OTHER	Non-Fibrous Components (%)
990128MS123-1	EM 383564	A	Brown soil	100	Trem-Act	TR	3	TR	0	0	0	0	0	97
					Point Count	*TR*	Observed but not countable under protocol, < 0.25%							
990128MS123-2	EM 383565	A	Brown soil	100		ND	3	TR	0	0	0	0	0	97
990128MS123-3	EM 383566	A	Brown soil	100		ND	5	TR	0	0	0	0	0	95
990128MS123-4	EM 383567	A	Brown soil	100		ND	5	TR	0	0	0	0	0	95
990128MS123-5	EM 383568	A	Brown soil	100		ND	7	TR	0	0	0	0	0	93
990128MS123-6	EM 383569	A	Brown soil	100		ND	5	TR	0	0	0	0	0	95
990128MS123-7	EM 383570	A	Brown soil	100	Trem-Act	ND	5	TR	0	0	0	0	0	95
					Point Count	*TR*	Observed but not countable under protocol, < 0.25%							
990128MS123-8	EM 383571	A	Brown soil	100		ND	8	0	0	0	0	0	0	92
990128MS123-9	EM 383572	A	Brown soil	100		ND	5	0	0	0	0	0	0	95
990128MS123-10	EM 383573	A	Brown soil	100		ND	7	TR	0	0	0	0	0	93

ND = None Detected
TR = Trace, < 1% Visual Estimate
CELL = Cellulose
ORG = Organic
Trem-Act = Tremolite-Actinolite
WOLL = Wollastonite
BRUC = Brucite
GYP = Gypsum
SYNTH = Synthetic

Analyst: PDL

Data QA

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No Further Action Justification Document for the Property Utilization and Disposal Yard Asbestos Site (PAC NW-1501)

Responses to DOE Comments

March 31, 1999

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The following are responses to two sets of comments received from the Department of Energy regarding the Draft No Further Action Justification Document for the Property Utilization and Disposal Yard Asbestos Site (PAC NW-1501) dated February 24, 1999. One set of comments were handwritten and one was typed. Comments are addressed as separate sets beginning with the handritten version 1 - 14.

Comment 1 of 14
Section 1.1 (page 1): The comment states: "need some work to convince ourselves that the sampling and analysis (S & A) is technically defensible to meet this criteria for NFA".

Response:
A Sampling and Analysis Plan was prepared by a State Certified Asbestos inspector under applicable regulations. In addition, sampling activities conducted under the SAP were in accordance with the Rocky Mountain Remediation Services (RMRS) Quality Assurance Program Plan. Text was added to clarify consistency with the regulations.

Wording in Section 1.1 was rephrased to eliminate "scientifically and legally defensible", however the protocols followed to characterize this Site adopted a more conservative and technical approach than was required under the applicable regulations.

Comment 2 of 14
Section 1.2 (page 2): The comment requests additional information pertaining to PAC NW-1501.

Response:
The HRR PAC narrative for this incident was submitted in the Third Quarterly Report to the HRR dated April 30, 1993 and is attached.

Comment 3 of 14
Section 2.0 (page 2): Does Appendix B support the investigation and results? If so, should reference the clear meaning of Appendix B.

Response
The sampling, analysis, and final assessment for this Site was conducted under 40 CFR 763.86, Appendix A, Subpart F, Federal Register, Vol. 52, No. 210, Rules and Regulations, October 30. Appendix B is included as documentation that sampling personnel had proper credentials to perform the task.
The text was modified to describe intent and reference Appendix B.

Comment 4 of 14
Section 2.0 (page 2): The comment states: "how do we know this is consistent, where is the SAP:

Response:
A Sampling and Analysis Plan was prepared by a State Certified Asbestos inspector under applicable regulations. In addition, sampling activities conducted under the SAP were in accordance with the Rocky Mountain Remediation Services (RMRS) Quality Assurance Program Plan. Text was added to clarify consistency with the regulations.

Comment 5 of 14
Section 2.0 (page 2): The comment questions the Regulation used (i.e.5 CCR 1001-1, Reg. 8, and 40 CFR 763.82)

Response:
The comment is accurate. Text was changed to incorporate the following regulation: 40 CFR 763.86, Appendix A, Subpart F, Federal Register, Vol. 52, No. 210, Rules and Regulations, October 30.

Comment 6 of 14
Section 2.0 (page 4): The comment states that Subpart E should be used instead of F.

Response:
Subpart F was correctly cited. Subpart F and Appendix A of the regulation are included in Section 7.0 References.

Comment 7 of 14
Section 2.0 (page 4): The comment asks if we have to do air sampling.

Response:
The health and safety plan required that suppression of dust would be required to minimize any potential for asbestos fibers to become airborne. Water was used to suppress dust during field operations. There were no air sampling requirements based upon the inspector's original walkdown of the Site (i.e. there was no visual evidence of asbestos present).

Comment 8 of 14
Section 3.3 (page 7): The comment asks if asbestos could have blown across the PU&D Yard, what is the behavior of asbestos, did anyone do visual check::

Response:
A visual check of the Site was performed by the State Certified Asbestos Inspector on October 6, 1998 during the original Site walkdown. There was no visual evidence of asbestos contamination. To provide further information regarding this comment, the HRR Quarterly Update (attached) describes the estimate of missing asbestos insulation from the boiler as approximately 1 and ½ pounds. The investigation addressed a large area of approximately 2800 square feet and it is unlikely that concentrations of asbestos fibers could result in contaminated soil at distances greater than the area under investigation.

Comment 9 of 14
Section 4.1 (page 7): The comment asks "do we need approval of the SAP"

Response:
The characterization methodology specified by the Colorado Code of Regulations CCR #8 and EPA 40 CFR 763.82 to identify asbestos contamination in soils was followed for this investigation. A Sampling and Analysis Plan was prepared by the State Certified Asbestos Inspector (RMRS, 1999) which follows the required methodology as well as plant procedures. The SAP was approved and controlled by RMRS.

Comment 10 of 14.
Section 4.1 (page 8): The comment asks why PLM?

Response:
In response, PLM was spelled out to clarify text and as stated within the attached regulations, Polarized Light Microscopy is the approved analytical method for characterization of suspect asbestos contamination in soils. PLM was referenced within the SAP as the approved analytical method.

Comment 11 of 14
Section 4.1 (page 8): The comment asks what is the MDL? States "Listed as Trace on lab report but naturally occurring per our inspector?

Response:
The MDL for the PLM visual Point Count method is <5 microns with less than .25 micron diameter fiber. The trace detection of tremolite in two samples was observed at <.25%. This estimate is consistent with natural observations of tremolite mineral in Front Range soils.

Comment 12 of 14
Section 4.1 (page 8): The comment suggests that we make table consistent with lab report or include chrysotile and tremolite results.

Response:
Table 1 was modified to incorporate tremolite results.

Comment 13 of 14
Section 5.0 (page 9): The comments are editorial.

Response:
The editorial comments were addressed. Also, the document as a whole was reviewed for consistency, punctuation and clarity.

Comment 14 of 14
Section 7.0 (page 11): The comment states states that if the HRR is updated annually, shouldn't we use the most recent version.

Response:
The original HRR Report was published in 1992 and as required within the IAG (superceded by RFCA) the report requires updates. These updates were submitted quarterly until an agreement for annual updates was made in 1996. Therefore, the Quarterly Update to the Historical Release Report for the reporting period from January 1, 1993 thru April 1, 1993 contains the PAC write-up for the asbestos finding.

Second Set of DOE Comments:

Comment 1 of 6
Section 3.3 (page 7): The comments states that the last sentence is incomplete.

***Response:** The sentence was completed.*

Comment 2 of 6
Section 3.3 (page 7): The comment suggests that the words potentially and probably be exchanged.

***Response:** The suggested text was exchanged.*

Comment 3 of 6
Section 4.0 (page 7&8): The comment states that this section is somewhat confusing with regard to references to both source and surface soil samples.

***Response:** Section 4.0 was re-written to address sampling chronology and methodology.*

Comment 4 of 6
Section 4.1 (page 8): The comment states, consider re-phrasing to "... none of the soil samples collected... ... "). Also, add references to Appendix A as results of analysis of source material and Appendix C for the source of the summary soil characterization in Table 1.

***Response:** All comments were addressed as suggested.*

Comment 5 of 6
Section 5.0 (page 9): The comment requests editorial re-work of last sentence.

***Response:** The comment was addressed.*

Comment 6 of 6
Appendix A: The comment suggests re-naming Appendix A to " 1992 Laboratory Data Results of Analysis of Potential Source Material".

Response: *The comment was addressed.*

OUTGOING LTR NO.

93 RF 5296

DIST.	LTR	ENC
BE... TTI, R.L.	X	
BE... MIN, A.		
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B... CH, D.B.		
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COPP, R.D.		
DAVIS, J.G.		
FERRERA, D.W.		
HANNI, B.J.	X	
HARMAN, L. K.		
HEALY, T.J.		
HEDAHL, T.		
HILBIG, J.G.		
KIRBY, W.A.		
KUESTER, A.W.		
LEE, E.M.		
MANN, H.P.		
MARX, G.E.		
McDONALD, M.M.		
McKENNA, F.G.		
MONTROSE, J.K.		
MORGAN, R.V.		
POTTER, G.L.		
PIZZUTO, V.M.		
RILEY, J.H.		
SANDLIN, N.B.		
SHEPLER, R.L.		
STEWART, D.L.		
SULLIVAN, M.T.		
SWANSON, E.R.		
WILKINSON, R.B.	X	
WILLIAMS, S. (ORC)		
WILSON, J. M.		
ZANE, J. O.		
Broussard, M	X	
D... os, N	X	
CORRES CONTROL	X	X
ADMIN RECORD		
TRAFFIC		

CLASSIFICATION:

UCNI Not		
UNCLASSIFIED		
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER SIGNATURE

DATE 4/30/93

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS
OPEN ☐ CLOSED
☐ PARTIAL
APPROVALS:

ORIG & TYPIST INITIALS
MCB
NSD:lA

RF-46469 (Rev. 3/93)

EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

April 30, 1993

93-RF-5296

Frazer R. Lockhart
Director
DOE, RFO

Attn: R. J. Schassburger

SUBMITTAL OF THIRD QUARTERLY UPDATE TO THE HISTORICAL RELEASE REPORT (HRR) - RLB-201-93

Enclosed is the Quarterly Update Report for January 1, 1993 to April 1, 1993. We are prepared to submit four copies (two each) of this update to the Environmental Protection Agency and the Colorado Department of Health upon receipt of your official transmittal letter.

If you have any questions regarding this transmittal, please contact Nick Demos of my staff at extension 6938.

M. C. Broussard

R. L. Benedetti
Associate General Manager
Environmental Restoration Management

NSD:la

Orig. and 1 cc - F. R. Lockhart

Enclosure:
As Stated

29

QUARTERLY UPDATE

FROM JANUARY 1, 1993 THROUGH APRIL 1, 1993

HISTORICAL RELEASE REPORT (HRR)

PREPARED BY

ENVIRONMENTAL RESTORATION
FACILITIES OPERATIONS MANAGEMENT

EG&G ROCKY FLATS, INC.

APRIL 30, 1993

30

PAC REFERENCE NUMBER: NW-~~176~~ 1501

PAC # Changed TO NW-1501 MSC

IHSS Number: Not Applicable

Unit Name: Operable Unit 10, PU&D Yard Unit

Approx. Location: N751,500; E2,082,000

Date(s) of Operation or Occurrence

1974 - Present

An occurrence was reported on November 12, 1992

Description of Operation or Occurrence

On November 12, 1992 at 1600 hours it was discovered that a reportable quantity of asbestos (approximately 1 and 1/2 pounds) was released to the environment from a boiler being stored in the PU&D storage yard.

Physical/Chemical Description of Constituents Released

The location of the spill is identified as being within the IHSS 170 boundary. The reportable quantity (RQ) established for asbestos is more than 1 pound/pint. Analytical data gathered from samples collected on May 27, 1992 show bulk asbestos concentrations at 60% of the total volume of sample analyzed. Visual observations made on November 12, 1992 indicate that approximately 15 square feet of asbestos insulation was missing.

Responses to Operation or Occurrence

The National Response Center (NRC) was notified immediately upon discovery of the boiler and subsequent missing asbestos. Containment operations began immediately by wetting down the boiler and surrounding ground and covering the area with plastic. The boiler was wrapped with plastic and taped.

Fate of Constituents Released to Environment

An unknown amount of asbestos was released to the environment. The area impacted by this release is submitted in accordance with the Interagency Agreement (IAG), Sections I.B.3 Notification, and I.B.5.

Comments

None

References

As Enclosed

Analytical data from Pace Laboratories

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

EG&G Rocky Flats, Inc.
P.O. Box 464, T452G
Golden, CO 80402

May 27, 1992
PACE Project Number: D20518E

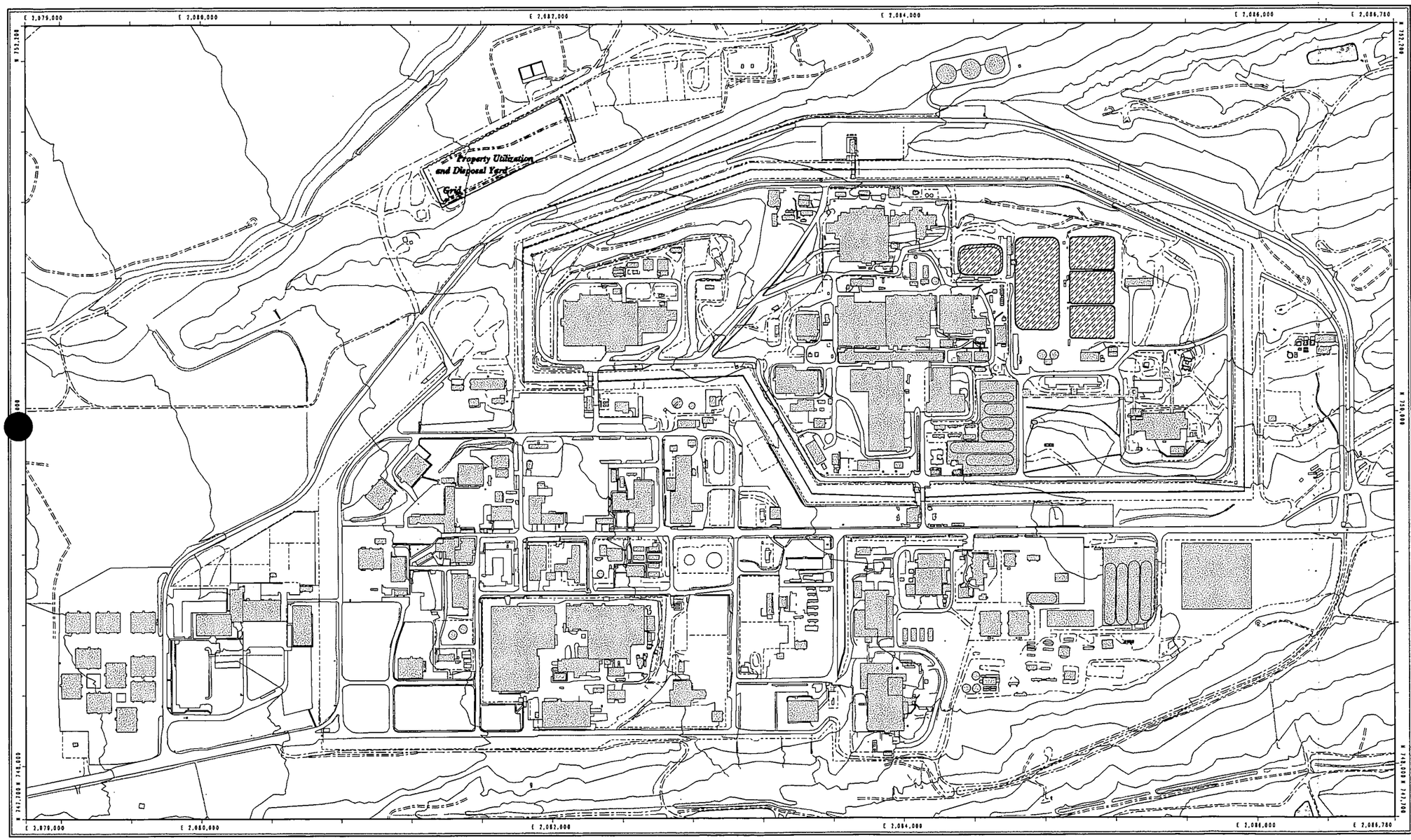
Attn: Mr. Scott Nickerson

Client Reference: 141A / J. E. Sanchez

PACE Sample Number:			65 0046869	65 0046877	65 00468
Date Collected:			05/12/92	05/12/92	05/12/92
Date Received:			05/18/92	05/18/92	05/18/92
Client Sample ID:			PUD 920512	PUD 920512	PUD 9205
Parameter	Units	MDL	13-01	13-02	13-03
INORGANIC ANALYSIS					
BULK ASBESTOS					
Chrysotile Asbestos	%	1	60	60	60
Amosite Asbestos	%	1	ND	ND	ND
Crocidolite Asbestos	%	1	ND	ND	ND
Tremolite/Actinolite	%	1	ND	ND	ND
Anthophyllite	%	1	ND	ND	ND
Total Asbestos	%	1	60	60	60

MDL Method Detection Limit
ND Not detected at or above the MDL.

6930 McIntyre Street
Golden, CO 80403
TEL: 303-278-3400
800-878-9436
FAX: 303-278-2121



Location Map
Figure 1.1
Property Utilization & Disposal Yard

EXPLANATION

Location Information

- PU&D Yard
- Sample Grid

Standard Map Features

- Buildings and other structures
- Solar evaporation ponds
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Contours (20' Intervals)
- Rocky Flats boundary
- Paved roads
- Dirt roads

DATA SOURCE:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EDM/GRSI, Las Vegas. Digitized from the orthophotographs. 1/95

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Scale = 1 : 7230
1 inch represents approximately 603 feet

250 0 500 1000ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

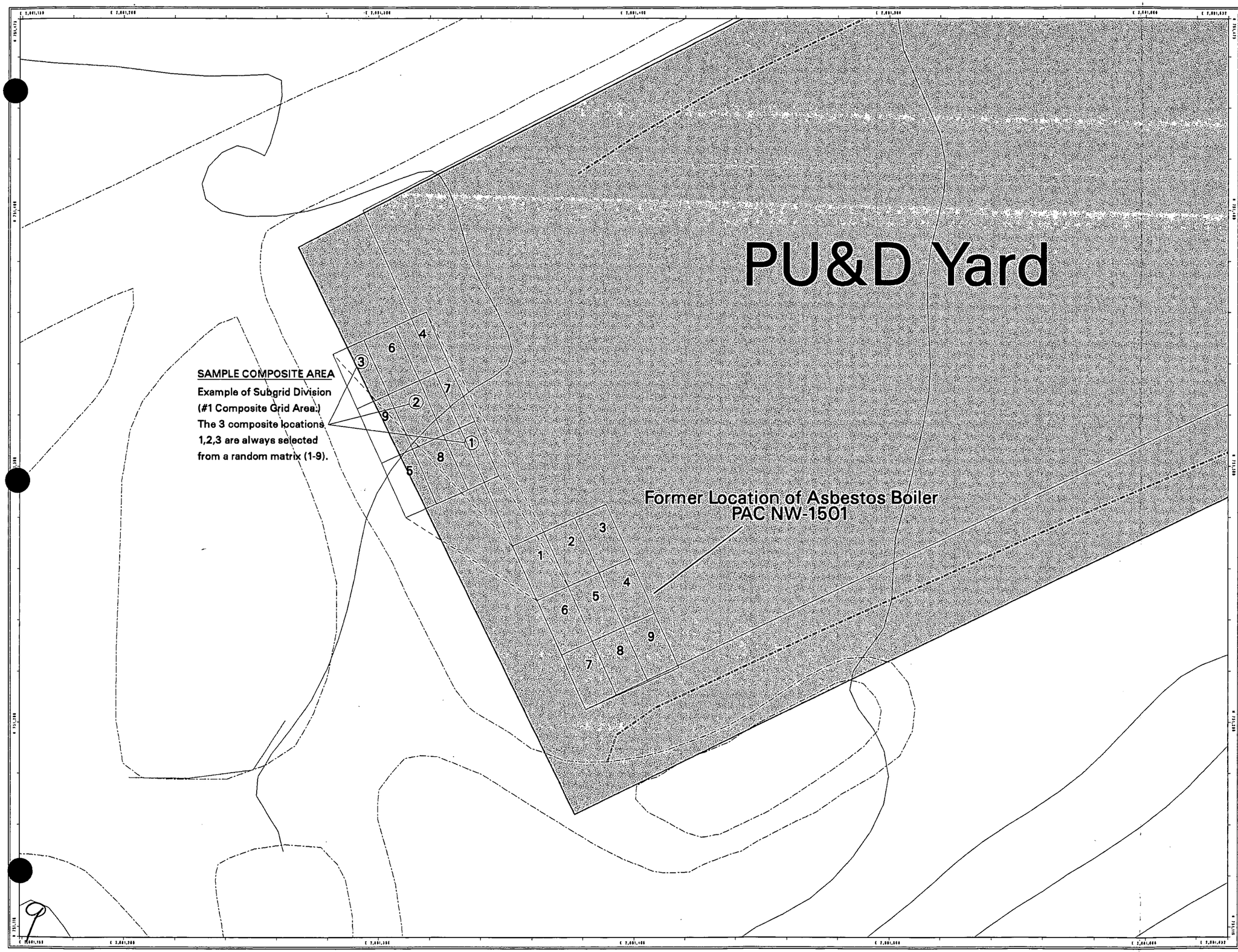
Prepared by:

RMRS Rocky Mountain Remediation Services, L.L.C.
Geographic Information Systems & mapp
Rocky Flats Environmental Technology Site
P.O. Box 464
Golden, CO 80402-0464

MAP ID: 98-0121 February 23, 1999

/gis/projects/fy99/99-0121/oltp_loc.aml

Sampling Grid
Potential Area of Concern
(PAC NW-1501)
Property Utilization & Disposal Yard
Figure 2.1



EXPLANATION

- PU&D Yard
- 5 — Sample Composite Grid Area

Standard Map Features

- Fences and other barriers
- Paved roads
- Dirt roads
- Contours (5 foot)

DATA SOURCE:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95

N

Scale = 1 : 430
1 inch represents approximately 36 feet

10 0 20 40 ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

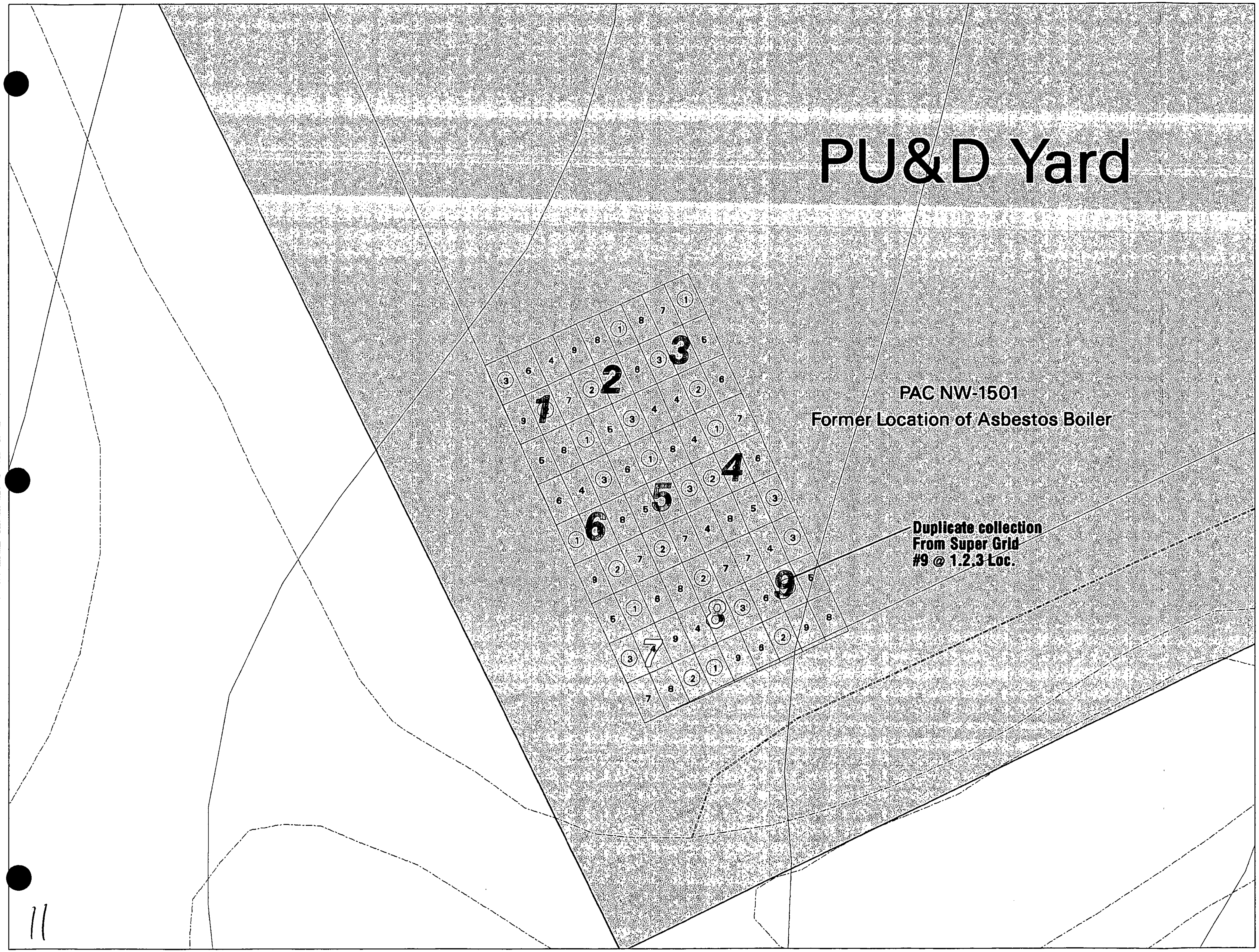
Prepared by:

RMRS
Rocky Mountain
Remediation Services, L.L.C.
Geographic Information Systems Group
Rocky Flats Environmental Technology Site
P.O. Box 464
Golden, CO 80402-0464

MAP ID: 99-0122

February 25, 1999

/gis2/projects/fy99/99-0121/pu-d_samp2.aml



Sampling Grid
Potential Area of Concern
(PAC NW-1501)
Property Utilization & Disposal Yard
Figure 2.2

EXPLANATION

Composite Grid Area

- PU&D Yard
- Super-Grid Cell
- Sub-Grid Cell
- Sample Composite Location

Standard Map Features

- Fences and other barriers
- Paved roads
- Dirt roads
- Contours (2-foot)

DATA SOURCE:
Buildings, fences, hydrography, roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas. Digitized from the orthophotographs. 1/95

N

5 0 10 20 ft

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by:

RMRS Rocky Mountain Remediation Services, L.L.C.
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Rocky Flats Environmental Technology Site
P.O. Box 464
Golden, CO 80402-0464

MAP ID: 99-0121

February 26, 1999

/gis2/projects/fy99/99-0121/pu-d_samp-zoom.aml